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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LENNOX, NATALIE

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/522,024	Applicant(s) SCAHILL ET AL.	
	Examiner NATALIE LENNOX	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/25/2008, 02/26/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action has been issued in response to the amendments filed February 26, 2008. Claims 1-14 are amended.

Response to Arguments

1. Applicant's arguments with respect to claims 1 and 8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 7, 8, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jebara et al. ("Tracking Conversational Context for Machine Mediation of Human Discourse," 2000) in view of Gusler et al. (US 2003/0115064).

As per claims 1 and 8, Jebara et al. teach an information interface system and method, comprising:

speech recognition means arranged to listen to voice signals carried on a communications channel between a user and another person, and to recognize at least one or more predefined keywords or phrases contained within the voice signals (System Overview, lines 1-6, speech recognizer which detects words);

keyword processing means arranged to relate recognized keywords or phrases to items of information stored in an information database so as to identify relevant items of information thereto (Implementation and System Overview, whole paragraphs); and

information display means arranged to display any items of information and/or links thereto identified by the keyword processing means to the user (System Overview, lines 1-14, wherein the large projection screen is the display means, which provides feedback to the users).

However, Jebara et al. does not specifically mention the information interface system comprising:

listening to telephone voice signals carried on a telephone communications channel, and

speech recognition control means arranged to activate the speech recognition means at a time during an ongoing exchange of voice signals on said communications channel after the communications channel has been carrying voice signals related to the voice signals to be monitored in response to one or more predetermined criteria.

Conversely, Gusler et al. teach

listening to telephone voice signals carried on a telephone communications channel (Paragraph [0025], lines 1-6), and

speech recognition control means arranged to activate the speech recognition means at a time during an ongoing exchange of voice signals on said communications channel after the communications channel has been carrying voice signals related to the voice signals to be monitored in response to one or more predetermined criteria

(Paragraph [0025], lines 1-10, paragraph [0036], paragraph [0041], lines 8-12, and Figs. 5 and 6. Also, the predetermined criteria for activating the speech recognition means are shown in Fig. 5 when steps 530 and 555 are negative, as well as in Fig. 6 when steps 630 and 650 are negative. It is noted that Gusler et al. does not specifically cite activating the speech recognition means, however, it would have been obvious to a person having ordinary skill in the art at the time of the invention that while the "speech recognition muting" is on, the speech recognizer is assumed to be "deactivated" and when the speech recognizer is not "muted" then the speech recognition means are activated such as provided in steps 565 from Fig. 5 and 670 from Fig. 6).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the features of listening to telephone voice signals carried on a telephone communications channel and a speech recognition control means arranged to activate the speech recognition means at a time during an ongoing exchange of voice signals related to the voice signals to be monitored in response to one or more predetermined criteria as taught by Gusler et al. for Jebara et al.'s system because Gusler et al. provides methods and systems employing computerized speech recognition and capturing customer speech to improve customer service (Paragraph [0043]) by de-cluttering the speech input for better automatic processing, by removing all but the pertinent words spoken by the customer (Paragraph [0006], lines 15-21).

As per claims 7 and 14, Jebara et al. in view of Gusler et al., teach a system and method according claims 1 and 8. Jebara et al. does not, but Gusler et al. does teach wherein:

the predetermined criteria are selected such that the speech recognition means is deactivated on that portion or portions of the voice signals which are not expected to contain keywords or phrases (Gusler et al's paragraph [0025], lines 1-10, paragraph [0036], and paragraph [0006]. Also, Figs. 5 shows steps 530 and 555 when the system does not "pass speech signal to processing function" given that either the speech recognition is "muted" or the speech signal is close to the service representative's voice characteristics. Fig. 6 shows as well not passing the speech signal to the processing function when steps 630 and 650 are negative because the speech recognition is "muted" or the service representative's mouthpiece is active.).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the feature of the speech recognition means is deactivated on that portion or portions of the voice signals which are not expected to contain keywords or phrases as taught by Gusler et al. for Jebara's system because Gusler provides methods and systems employing computerized speech recognition and capturing customer speech to improve customer service (Paragraph [0043]) by de-cluttering the speech input for better automatic processing, by removing all but the pertinent words spoken by the customer (Paragraph [0006], lines 15-21).

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4. Claims 2-6, and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jebara et al. ("Tracking Conversational Context for Machine Mediation of Human Discourse," 2000) in view of Gusler et al. (US 2003/0115064) as applied to claims 1 and 8 above, and further in view of Rhodes et al. ("Just-in-time information retrieval agents," July 2000).

As per claims 2 and 9, Jebara et al. in view of Gusler et al., teach a system and method according to claims 1 and 8, but they do not specifically mention wherein the keyword processing means further comprises:

storage means for storing item definition data defining the items of information in the information database; item matching means for matching recognized keywords or phrases to the item definition data; and item scoring means for keeping an item score for each item of information in dependence upon the number of keywords or phrases matched to each item.

However, Rhodes et al. teach

storage means for storing item definition data defining the items of information in the information database (Page 1, 2nd paragraph, "The information a JITIR agent provides can come from any number of preindexed databases of documents.");

item matching means for matching recognized keywords or phrases to the item definition data (Page 8, 2nd paragraph, "given a query, it produces a rank-ordered list of preindexed documents that best match the query");

and item scoring means for keeping an item score for each item of information in dependence upon the number of keywords or phrases matched to each item (Page 8,

2nd paragraph, "given a query, it produces a rank-ordered list of preindexed documents that best match the query").

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the features of storage means, item matching means and item scoring means as taught by Rhodes et al. for Jebara's system, as modified by Gusler, because Rhodes provides an information retrieval agent (JITIR) that retrieves and presents information based on a person's local context (Page 1, 1st paragraph/abstract), and which can also be based on automatic speech recognition (Page 6, 4th paragraph, "one such technique is ASR, which is now accurate enough so that information retrieval on a database of raw audio news stories").

As per claims 3 and 10, Jebara et al., in view of Gusler et al. and Rhodes et al., teach a system and method according to claims 2 and 9, wherein the keyword processing means further comprises:

item sorting means arranged to sort the items of information in dependence on the respective item scores (Rhodes' Page 8, 2nd paragraph, "given a query, it Produces a rank-ordered list of preindexed documents that best match the query," also Page 4, 2nd paragraph, "all summary lines also include a relevance score, consisting of zero, one, or two plus signs.").

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the feature of item sorting means arranged to sort the items of information in dependence on the respective item scores as taught by Rhodes

et al. for Jebara's system, as modified by Gusler, because Rhodes provides an information retrieval agent (JITIR) that retrieves and presents information based on a person's local context (Page 1, 1st paragraph/abstract), and which can also be based on automatic speech recognition (Page 6, 4th paragraph, "one such technique is ASR, which is now accurate enough so that information retrieval on a database of raw audio news stories").

As per claims 4 and 11, Jebara et al. in view of Gusler et al. and Rhodes et al., teach a system and method according to claims 2 and 8, wherein the keyword processing means further comprises:

item score thresholding means arranged to apply at least one threshold to the item scores, wherein those items whose item scores do not meet the threshold are not made available to the user (Rhodes' Page 4, 2nd paragraph, "All summary lines also include a relevance score, consisting of zero, one, or two plus signs. By default, if a suggestion is below a minimum threshold, it is not displayed, and "no suggestion" is shown instead.").

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the feature of item score thresholding means arranged to apply at least one threshold to the item scores, wherein those items whose item scores do not meet the threshold are not made available to the user as taught by Rhodes et al. for Jebara's system, as modified by Gusler, because Rhodes provides an information retrieval agent (JITIR) that retrieves and presents information based on a

person's local context (Page 1, 1st paragraph/abstract), and which can also be based on automatic speech recognition (Page 6, 4th paragraph, "one such technique is ASR, which is now accurate enough so that information retrieval on a database of raw audio news stories").

As per claims 5 and 12, Jebara et al. in view of Gusler et al., teach a system and method according to claims 1 and 8, however they do not specifically mention wherein:

the information display means is arranged to display the items of information and/or links thereto as a hierarchical structure, which matches the hierarchy of the information database.

Conversely, Rhodes et al. teach information display means arranged to display the items of information and/or links thereto as a hierarchical structure, which preferably matches the hierarchy of the information database (Rhodes' Page 3, 6th paragraph, "The RA continually presents a list of documents that are related to the current document being written or read. These suggestions appear in order of relevance within a special display buffer at the bottom of the Emacs window.").

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the feature of information display means arranged to display the items of information and/or links thereto as a hierarchical structure, which preferably matches the hierarchy of the information database as taught by Rhodes et al. for Jebara's system, as modified by Gusler, because Rhodes provides an information retrieval agent (JITIR) that retrieves and presents information based on a person's local

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context (Page 1, 1st paragraph/abstract), and which can also be based on automatic speech recognition (Page 6, 4th paragraph, "one such technique is ASR, which is now accurate enough so that information retrieval on a database of raw audio news stories").

As per claim 6, Jebara et al. in view of Gusler et al., teach a system according claim 1, however they do not specifically mention wherein:

the speech recognition means, the keyword processing means and the information display means are substantially continuously or periodically operable so as to continually or periodically update the items of information and/or links thereto displayed to the user.

Conversely, Rhodes teaches speech recognition means, the keyword processing means and the information display means are substantially continuously or periodically operable so as to continually or periodically update the items of information and/or links thereto displayed to the user (Rhodes' Page 3, 6th paragraph).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the feature of speech recognition means, the keyword processing means and the information display means are substantially continuously or periodically operable so as to continually or periodically update the items of information and/or links thereto displayed to the user as taught by Rhodes et al. for Jebara's system, as modified by Gusler, because Rhodes provides an information retrieval agent (JITIR) that retrieves and presents information based on a person's local context (Page

1, 1st paragraph/abstract), and which can also be based on automatic speech recognition (Page 6, 4th paragraph, "one such technique is ASR, which is now accurate enough so that information retrieval on a database of raw audio news stories").

As per claim 13, Jebara et al. in view of Gusler et al., teach a method according claim 8, however they do not specifically mention wherein the steps recited therein are substantially continuously or periodically repeated so as to continually or periodically update the items of information and/or links thereto displayed to the user.

Conversely, Rhodes teaches speech recognition, keyword processing and information display being substantially continuously or periodically repeated so as to continually or periodically update the items of information and/or links thereto displayed to the user (Rhodes' Page 3, 6th paragraph).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the feature of speech recognition, the keyword processing and the information display being substantially continuously or periodically operable so as to continually or periodically update the items of information and/or links thereto displayed to the user as taught by Rhodes et al. for Jebara's method, as modified by Gusler, because Rhodes provides an information retrieval agent (JITIR) that retrieves and presents information based on a person's local context (Page 1, 1st paragraph/abstract), and which can also be based on automatic speech recognition (Page 6, 4th paragraph, "one such technique is ASR, which is now accurate enough so that information retrieval on a database of raw audio news stories").

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATALIE LENNOX whose telephone number is (571)270-1649. The examiner can normally be reached on Monday to Friday 9:30 am - 7 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571)272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NL 05/29/2008

/Richemond Dorvil/
Supervisory Patent Examiner, Art Unit 2626